

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
12 May 2005 (12.05.2005)

PCT

(10) International Publication Number  
**WO 2005/042730 A3**

(51) International Patent Classification<sup>7</sup>: C12N 5/08,  
A61K 35/12, A61P 19/00

(21) International Application Number:  
PCT/JP2004/016717

(22) International Filing Date:  
4 November 2004 (04.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2003-375026 4 November 2003 (04.11.2003) JP  
2004-039099 16 February 2004 (16.02.2004) JP

(71) Applicant (for all designated States except US):  
BIOMASTER, INC. [JP/JP]; The Imperial Hotel Tower  
12F, 1-1-1, Uchisaiwaicho, Chiyoda-ku, Tokyo, 1000011  
(JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): YOSHIMURA, Ko-  
taro [JP/JP]; 1-3-9, Hiroo, Shibuya-ku, Tokyo, 1500012  
(JP). MATSUMOTO, Daisuke [JP/JP]; 1-7-5-203,  
Uenosakuragi, Taito-ku, Tokyo, 1100002 (JP).

(74) Agents: YAMAMOTO, Shusaku et al.; Fifteenth Floor,  
Crystal Tower, 2-27, Shiromi 1-chome, Chuo-ku, Osaka-  
shi, Osaka, 5406015 (JP).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,  
SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(88) Date of publication of the international search report:  
29 September 2005

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND SYSTEM FOR PREPARING STEM CELLS FROM FAT TISSUE

(57) Abstract: The present invention provides a method for preparing homogeneous stem cells and/or precursor cells in a large amount, in a simple and efficient manner, from human (in particular, the subject per se). The present invention further provides a method for preparing tissue implant or graft in a large amount by the use of the stem cells and/or precursor cells of the present invention. The present inventors have unexpectedly discovered that an aspirate from liposuction contains a large number of stem cells and have established a method for preparing stem cells from such an aspirate from liposuction, and thereby achieved the above-mentioned object.

WO 2005/042730 A3